

Date: Fri, 12 Feb 93 15:36:44 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #203  
To: Info-Hams

Info-Hams Digest Fri, 12 Feb 93 Volume 93 : Issue 203

## Today's Topics:

"Laundered" Ticket Story & FCC question  
Calling Tony Querbin (CQ Hawaii)  
Cancer, Hams , Proof, Danger re RF RADIATION  
Daily Solar Geophysical Data Broadcast for 11 February  
KAM or PK-232MBX  
Kenwood 850 display  
Kenwood Parts (was WANTED Kenwood TS820 manual/schematic)  
Low current DC Power in the Hamshack  
Memory expansion for radios.  
Mystery MF/LF CW signals  
OAHU GATEWAY?  
Query re Kenwoood TH-78A  
Rebroadcast of Space Shuttle's audio  
shave and a haircut  
Swap Nets around the country?  
Weekly Solar Terrestrial Forecast & Review - 12-21 Feb

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.EDU in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 11 Feb 93 21:28:29 GMT  
From: newsstand.cit.cornell.edu!piccolo.cit.cornell.edu!crux2!ljh1@cup-  
arpa.cs.cornell.edu  
Subject: "Laundered" Ticket Story & FCC question  
To: info-hams@ucsd.edu

Several weeks after receiving my coveted extra class ticket in the

mail, I laundered my wallet. The warning on the new licenses is true; heat (and soapy water) do cause laser-printed typesetting to transfer. In my case, all of the laser-typesetting transferred onto the plastic card holder in my wallet, leaving the license paper squeaky clean. Fortunately, I had the "suitable for framing" copy of my ticket hanging on my wall.

Lesson learned: laminate your new ticket before putting it into your wallet. It will save you a lot of headaches. I imagine that body heat over the period of a couple months is sufficient to cause the laser-typesetting to transfer as well.

Question for the net: What is the procedure for requesting a new license copy from the FCC? Do I need to use a 610 form, or can I just send the Gettysburg office a letter?

Thanks in advance,

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Leif J. Harcke, N3EEN  
Leif-Harcke@cornell.edu

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Date: Thu, 11 Feb 93 16:14:11 GMT  
From: mvb.saic.com!unogate!news.service.uci.edu!usc!sol.ctr.columbia.edu!The-  
Star.honeywell.com!umn.edu!csus.edu!csusac!usenet@network.UCSD.EDU  
Subject: Calling Tony Querbin (CQ Hawaii)  
To: info-hams@ucsd.edu

Tony, drop me a note please. Have a question(s) for you.

73s :-)

chuckb@babbage.ecs.csus.edu  
n6dbt

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My sig file

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Date: 10 Feb 93 23:30:41 GMT  
From: uswnvg!nv6.uswnvg.com!cjacks@uunet.uu.net  
Subject: Cancer, Hams , Proof, Danger re RF RADIATION  
To: info-hams@ucsd.edu

Well - since someone else started it....

When I was a lad, I used to hang out around the (Navy) MARS stations wherever my dad was stationed. One time in Pearl Harbor, I was watching while the tech tried to move a transmitter output lead from one antenna to another on a big patch panel. The patch panel had about 30 SO-239s on it. What he didn't realize was that the transmitter in question was still energized, and there was a rtty qso going on. He unplugged it fine, but when he went to plug it in to the other antenna, his thumb came in contact with the center conductor of the SO-239. I learned all sorts of new words that afternoon ;-)

There was a perfect cylindrical hole all the way through the fleshy part of his thumb AND the fingernail. Didn't even bleed a bit (the transmitter was running about 1Kw at the time). The smell wasn't real pleasant, either.

--

Clay Jackson - N7QNM  
US WEST NewVector Group Inc  
Bellevue, WA  
uunet!uswnvg!cjackson

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Date: 12 Feb 93 21:17:51 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Daily Solar Geophysical Data Broadcast for 11 February  
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 042, 02/11/93  
10.7 FLUX=173.2 90- AVG=139 SSN=131 BKI=3333 3224 BAI=014  
BGND-XRAY=B8.4 FLU1=1.2E+06 FLU10=1.2E+04 PKI=4332 3334 PAI=014  
BOU-DEV=038,026,038,022,031,018,015,046 DEV-AVG=029 NT SWF=02:008  
XRAY-MAX= M2.7 @ 1833UT XRAY-MIN= B6.4 @ 0116UT XRAY-AVG= C1.3  
NEUTN-MAX= +002% @ 1555UT NEUTN-MIN= -002% @ 1230UT NEUTN-AVG= -0.1%  
PCA-MAX= +0.1DB @ 2355UT PCA-MIN= -0.3DB @ 0545UT PCA-AVG= -0.0DB  
BOUTF-MAX=55415NT @ 0644UT BOUTF-MIN=55379NT @ 1916UT BOUTF-AVG=55404NT  
GOES7-MAX=P:+106NT@ 1933UT GOES7-MIN=N:+000NT@ 0954UT G7-AVG=+071,+036,+009  
GOES6-MAX=P:+121NT@ 1707UT GOES6-MIN=E:-007NT@ 0600UT G6-AVG=+083,+007,+050  
FLUXFCST=STD:165,160,150;SESC:165,160,150 BAI/PAI-FCST=010,010,010/010,018,010  
KFCST=3333 3333 2234 3323 27DAY-AP=012,006 27DAY-KP=3234 2323 2211 2322  
WARNINGS=\*MAJFLR;\*SWF;\*PROTON;\*PCA  
ALERTS=\*\*MINFLR:M1.2@1811UTC(RGN7420);\*\*MINFLR:M2.7@1833UTC(RGN7420);  
\*\*TENFLR:230SFU@1831UTC,DUR=3MIN  
!!END-DATA!!

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Date: 11 Feb 93 17:31:06 GMT

From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!  
spool.mu.edu!olivea!isc-br!tau-ceti!comtch!iea!FredGate@network.UCSD.EDU  
Subject: KAM or PK-232MBX  
To: info-hams@ucsd.edu

MCF> From: cfm1471@ucs.usl.edu (Morrison Charles F)  
MCF> Newsgroups: rec.radio.amateur.misc

MCF> In article <1993Feb10.150628.24930@cbnewsm.cb.att.com>

MCF> Seth, I own a Kam, and think of course that it is  
MCF> better. Hostmaster is a  
MCF> fine program if you want what you said you dont need, "True Dual Port".  
MCF> If monitoring is all you want it for, get a MFJ 1278,  
MCF> cause its the cheapest

MCF> and will monitor FAX as well as all the modes the others do. If you are

Having had a bunch of letters sent to me on this one I would doubt that the  
1278 does FAX quite that well.

MCF> looking into serious RTTY, i have heard that the demod  
MCF> shift in the 232 is  
MCF> set at a "True 170hz" rather then the Kam, which is  
MCF> like any multimode TU,  
MCF> designed for Packet first, and has a 200hz shift, with the ability to  
MCF> decipher RTTY.

Now actually the PK232 is a 200 Hz shift TU and the KAM is totally adjustable,  
just set MARK 2125 SPACE 2295 and see. It just defaults to 200 Hz. Actually  
one of the KAM's biggest features is total adjustable filters. You can set  
them for 1425 and 1525 and straddle a center USB frequency if you want.

MCF> heard. I worked CQ World Wide  
MCF> at a multi-op station, and with a Hal 2000, a AEA PK-  
MCF> 232, and my Kam, the Kam  
MCF> was the only one that was useful, because the other two were destroyed  
by  
MCF> RF. I have worked everyone i have heard on RTTY, AMTOR, and HF packet  
MCF> and dont use it in the CW mode. So, the 232 cant be  
MCF> that much better, at least  
MCF> not for the extra price. Your choice will depend on  
MCF> what you want your tu to  
MCF> do.

MCF> Hope this helps..

Good points on the rest. I have used and continue to use KAM's and PK232's  
both are excellent. Try the shift adjustments on the KAM pretty amazing.

\* Origin: Think Tank II BBS \* Spokane, WA (509) 244-6446 (1:346/8)

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Date: 12 Feb 93 19:47:19 GMT  
From: ogicse!emory!gatech!darwin.sura.net!rouge!cfm1471@network.UCSD.EDU  
Subject: Kenwood 850 display  
To: info-hams@ucsd.edu

Howdy,

This question has probably passed the net a zillion times, but i have never found a reasonable answer from anyone in this area, so im gonna circulate it again.

I have a Kenwood 850s and have noticed that when the radio sits unused for any extended time period, and you return to turn it on, the display has an delay in coming on. Is this normal? I heard it has something to do with the DC/DC converter for the disp. I just dont wanna wait till the radio is outta warranty for a free repair if there is a fix for this thing.

Answers, please!

Charlie

ki5xp@ucs.usl.edu

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Date: 12 Feb 93 21:23:50 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Kenwood Parts (was WANTED Kenwood TS820 manual/schematic)  
To: info-hams@ucsd.edu

<bird@drvax3.msfc.nasa.com> (Al Bird) writes:

>I am looking for a manual and schematics for a Kenwood TS820. I got a  
>good deal on one but he didn't have the books.

>I would like to know if they still sell the kits to add the digital  
>readout to these radios also.

I have found Pacific Coast Parts to be the best source for Kenwood parts, supplies, and manuals. they are a Kenwood parts distributor servicing both individual and business customers. Their number is 800-262-1312, and take orders by phone with your credit card. They

also have parts for other electronics manufacturers, but I don't have their linecard handy to post which ones. I have no connection with Pacific Coast Parts, just a satisfied customer. :-)

Wm. A. Kirsanoff Internet: WAKIRSAN@ananov.remnet.ab.com  
Rockwell International Ham: KD6MCI  
(714) 762-8869  
Alternate Internet: kirsanwa@catapult.anatcp.rockwell.com

Who are you? \* I am number 2. \* Who is number 1. \* You are number 6.

Date: Thu, 11 Feb 1993 19:01:45 GMT

From: usc!cs.utexas.edu!csc.ti.com!tilde.csc.ti.com!fststop.csc.ti.com!

linnig@network.UCSD.EDU

## Subject: Low current DC Power in the Hamshack

To: info-hams@ucsd.edu

My hamshack has ended up with many, many, little wall outlet transformers for all the gadgets I use besides my rig. I've got one for my ATV converter, one for my scanner preamp. One for my DX-440 shortwave radio...etc.

About half of these are for 12v and some of them are 9v.

Does everyone have this problem?

I've thought about rigging a 12v distribution system and building up (or buying) some low current regulators for the 9v stuff. I realize this is not a high tech problem. Do most of you just suffer along with lots of silly transformers hung all over the place? If you have a 12v distribution system, what kind of connectors do you use?

I sure wish the U.S. would adopt a low voltage DC standard and wire all the houses with it. Even my non-ham gear suffers from transformer glut.

(this was adopted from a thread I saw in comp.arch).

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- - - - - + - +  
Mike Linnig, Texas Instruments Inc. | 97.43% of all statistics are made |  
Phone: (214) 575-3597 CALL: N5QAW | up; most of them (83.6 percent) |  
Internet: mike.linnig@dseg.ti.com | are wrong.

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Date: Fri, 12 Feb 1993 19:29:59 GMT  
From: news.service.uci.edu!ttinews!avatar!sorgatz@network.UCSD.EDU  
Subject: Memory expansion for radios.  
To: info-hams@ucsd.edu

In article <1769@ncrclm.ClemsonSC.NCR.COM> tskelton@ncrclm.ClemsonSC.NCR.COM (Tom Skelton) writes:  
>In article <1993Feb10.182448.16275@tellab5.tellabs.com> jwa@tellabs.com (John W. Albert) writes:  
>>A few weeks ago I reported that a new company (Willco Electronics) is  
>>introducing no fail memory boards for Icom radios. This week I  
>>heard that they are planing to make available memory boards for  
>>other brands. They said that they can make a memory kits that  
>>will expand the Kenwood TS-440 to 32 times it's current capacity.  
>>That means the 440 will have 3200 memories!  
>  
>No joking...what in the heck would you do with 3200 memories??? With  
>the radios nowadays that have direct frequency entry, 1 MHz up/down  
>selector, etc...you can get to a specific frequency quicker than by  
>using the memories. If I am missing something please fill me in.  
>  
Yeah but wouldn't it be \*SWELL\* for scanning?! I want one..maybe two!  
..do they make 'em for the FT-980 and the FT-757gx1 ??

-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-----+  
TTI(sorgatz@soldev.tti.com)sorgatz@avatar.tti.com \* Think Eco, not EGO! \*  
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-----+  
(OPINIONS EXPRESSED DO NOT REFLECT THE VIEWS OF CITICORP OR ITS MANAGEMENT!)

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Date: 11 Feb 93 21:49:01 GMT  
From: newsstand.cit.cornell.edu!piccolo.cit.cornell.edu!crux2!ljh1@cu-  
arpa.cs.cornell.edu  
Subject: Mystery MF/LF CW signals  
To: info-hams@ucsd.edu

While tuning around the 100-500 kHz band a couple of months ago, I heard some strange CW signals. They were groups of 3 letters being sent at approx 10 wpm. I recently came across the paper I jotted down the signals on. The groupings are as follows:

Date: 92/9/4  
Time: 19:30Z  
Freq: 261.000 kHz  
Sequence: PYA (pause) PYA (pause) PYA (pause) .....

Date: 92/9/4  
Time: 19:30Z  
Freq: 263.200 kHz  
Sequence: YGK (cont. carier) YGK (cont. carrier) .....

Date: 92/9/4  
Time: 19:31Z  
Freq: 345.000 kHz  
Sequence: AVN (pause) AVN (pause) AVN (pause) .....

Anyone on the net know what these signals are?

Just curious,

--  
Leif J. Harcke, N3EEN  
Leif-Harcke@cornell.edu

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Date: 12 Feb 93 19:55:27 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: OAHU GATEWAY?  
To: info-hams@ucsd.edu

Is there a Packet->Internet and/or Internet->Packet gateway on  
the Island of Oahu?

Also, how much packet activity is there on island anyway?

Respond to 4311@cpf.navy.mil.

Thanks.

Fred

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Date: 12 Feb 93 21:17:00 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Query re Kenwood TH-78A

To: info-hams@ucsd.edu

I have a new, unmodified Kenwood Th-78A dual band h-t. Two queries: (1) When I do a band scan of the aircraft frequencies, up from 118 MHz, when it gets to about 127.9 MHz, the h-t starts beeping at me. It's not quite in phase with the scan rate. It doesn't beep from 118 MHz up to ~ 127.9 MHz; then it starts. Do I have a bug, or is this an undocumented feature? (2) The ARRL repeater shift band plan is implemented on the 2m band, but nothing on the 440 MHz band. Is there no ARRL repeater shift plan for 440, or does my rig have another 'bug'? Replies direct to me, or to the net if you feel there's general interest. Thanx. de Bob KG3J es Sharon KA3KHW

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Date: 12 Feb 93 17:56:00 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Rebroadcast of Space Shuttle's audio  
To: info-hams@ucsd.edu

Hello,

I was wondering if anyone was rebroadcasting the space shuttle's audio in the Rochester, NY area? If so, what frequency?

Thanks and 73

Tom Jennings, KV2X

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Date: 12 Feb 93 17:01:41 GMT  
From: ogicse!emory!gatech!darwin.sura.net!haven.umd.edu!wam.umd.edu!  
ham@network.UCSD.EDU  
Subject: shave and a haircut  
To: info-hams@ucsd.edu

I have always sent the "dit...di-di-dit.dit...dit.dit" because it was taught to me (indirectly) through QSO's as a nice way to end the conversation. This is the ham radio version of the famous

"Shave and a hair-cut....Two bits!"

routine, identical to the one that got Roger Rabbit caught by Dr. Doom in the bar. Of course, he got away...

Sometimes, when I'm saying goodbye to someone whom I have just dropped off from my car, I will do this with the horn. Just a nice way of

saying goodbye.

Scott NF3I

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Date: Thu, 11 Feb 1993 23:13:38 GMT  
From: usc!howland.reston.ans.net!spool.mu.edu!uwm.edu!linac!sunova!  
usenet@network.UCSD.EDU  
Subject: Swap Nets around the country?  
To: info-hams@ucsd.edu

In article <1993Feb11.212538.13493@cbnewsm.cb.att.com> jeffj@cbnewsm.cb.att.com (jeffrey.n.jones) writes:  
>I received some email asking about a swapnet locally around here.  
>Brought a question to mind, what are times and frequencies for  
>swap nets on the air around the US and around the world?

There is a good swap net on the Fort Worth, Texas 146.940 MHz repeater every Wednesday night starting at 8pm local time. The repeater has wide-area coverage of the DFW area, and any type of amateur-related equipment may be listed. There is also a technical section, allowing questions to be asked for a possible answer from other net participants, and an announcements section as well.

Chuck Adams, WB5WRR (The Chuckster)  
Not an official document of DOE, SSCL, URA or EG&G  
"I cut you three ways, man: quick, deep and frequently"  
Internet: chuck\_adams@qmail.ssc.gov

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Date: 12 Feb 93 21:34:15 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Weekly Solar Terrestrial Forecast & Review - 12-21 Feb  
To: info-hams@ucsd.edu

--- SOLAR TERRESTRIAL FORECAST AND REVIEW ---  
February 12 to February 21, 1993

Report Released by Solar Terrestrial Dispatch  
P.O. Box 357, Stirling, Alberta, Canada  
T0K 2E0  
Accessible BBS System: (403) 756-3008

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IMPORTANT NOTICE : Equipment is scheduled to be shut off and moved from one

location to another during the week from February 20 to February 26, 1993. During this period of time, some services will not be made available. This move will affect the weekly report which would have been released on February 25, and may affect the report for February 18. A bulletin will be issued later next week describing this.

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For information regarding our Dynamic Auroral Oval Simulator and its importance in aiding to determining propagation conditions, send a request for more information to:  
Oler@Rho.Ulth.CA, or Coler@Solar.Stanford.Edu

Our Spring Special is now in effect for this software and will remain active until 31 May, 1993.

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#### SOLAR AND GEOPHYSICAL ACTIVITY FORECASTS AT A GLANCE

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#### 10-DAY SOLAR/RADIO/MAGNETIC/AURORAL ACTIVITY OUTLOOK

|    | Solar    | HF Propagation +/- CON |    |    |    | SID PROB. | Es    | AU.BKSR | DX | Mag | Aurora |    |
|----|----------|------------------------|----|----|----|-----------|-------|---------|----|-----|--------|----|
|    | Activity | LO                     | MI | HI | PO | SWF %     | MUF % | ENH     | LO | MI  | HI     | %  |
| 12 | MOD      | VG                     | VG | F  | F  | 60        | +20   | 70      | 40 | NA  | NA     | NA |
| 13 | MOD      | VG                     | VG | F  | F  | 60        | +15   | 65      | 40 | NA  | NA     | NA |
| 14 | MOD      | VG                     | VG | F  | F  | 60        | +20   | 70      | 40 | NA  | NA     | NA |
| 15 | MOD      | VG                     | VG | F  | F  | 60        | +20   | 70      | 40 | NA  | NA     | NA |
| 16 | MOD      | VG                     | VG | F  | F  | 50        | +20   | 65      | 40 | NA  | NA     | NA |
| 17 | MOD      | VG                     | VG | F  | F  | 50        | +20   | 65      | 40 | NA  | NA     | NA |
| 18 | LOW-MOD  | VG                     | VG | F  | F  | 40        | +20   | 65      | 35 | NA  | NA     | NA |
| 19 | LOW-MOD  | VG                     | VG | P  | F  | 30        | +15   | 65      | 30 | NA  | NA     | NA |
| 20 | LOW      | VG                     | G  | P  | P  | 20        | +10   | 65      | 25 | NA  | NA     | NA |
| 21 | LOW      | VG                     | G  | P  | P  | 20        | +05   | 65      | 20 | NA  | NA     | NA |

#### DEFINITIONS:

Date (day only)

Possible Magnitude of Solar Flaring (LOW=C-class, MOD=M-class, HIGH=M or X)

HF Propagation Conditions for LOw, MIddle, HIgh, and POlar areas (see below)

HF Short Wave Fade Probability (in %)

HF Maximum Usable Frequency in +/- percent above seasonal normals.

HF Prediction CONFidence Level (in %)

VHF Sudden Ionospheric ENHancement Probs (in %), weighted for low-mid lats

PROBability of "s"poradic E (Es) during the UT day for low, mid and high lats

VHF AUroral BackScatteR Probs (in %) for LOw, MIddle and HIgh Latitudes  
 VHF Overall Global DX Potential (in %) - weighted for Low and Middle latitudes  
 Geomagnetic Activity Kp Index (peak value - see below)  
 GeoMAGnetic Activity Ap Index (peak value - see below)  
 AURORAL Activity for LOw, MIddle and HIgh Latitudes (see below)

HF Prop. Quality rated as: EG=Extremely Good, VG=Very Good, G=Good, F=Fair, P=Poor, VP=Very Poor, EP=Extremely Poor.

Probability of Sporadic E (Es) for the various latitudes is given in percent.

Kp Planetary Index rated: 0=V.Quiet, 1=Quiet, 2=Unstld, 3=Active, 4=V.Active, 5=Minor Storm, 6=Major Storm, 7=Maj-Sev Storm, 8=Severe Storm, 9=V.Severe.

Ap Planetary Index rated: 0-7=Quiet, 8-16=Unstld, 17-29=Active, 30-49=Minor Storm, 50-99=Major Storm, Severe Storm >=100.

Auroral Activity rated: NV=Not Visible, LO=Low, MO=Moderate, HI=High, VH=Very High.

#### PEAK PLANETARY 10-DAY GEOMAGNETIC ACTIVITY OUTLOOK (12 FEB - 21 FEB)

|                              |     |     |     |     |     |     |     |     |     |     |            |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|
| EXTREMELY SEVERE             |     |     |     |     |     |     |     |     |     |     | HIGH       |
| VERY SEVERE STORM            |     |     |     |     |     |     |     |     |     |     | HIGH       |
| SEVERE STORM                 |     |     |     |     |     |     |     |     |     |     | MODERATE   |
| MAJOR STORM                  |     |     |     |     |     |     |     |     |     |     | LOW - MOD. |
| MINOR STORM                  |     |     |     |     |     |     |     |     |     |     | LOW        |
| VERY ACTIVE                  |     |     |     |     |     |     |     |     | *   | **  | NONE       |
| ACTIVE                       | *   | **  | *   | *   | *   | *   |     | **  | *** | *** | NONE       |
| UNSETTLED                    | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | NONE       |
| QUIET                        | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | NONE       |
| VERY QUIET                   | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | NONE       |
| Geomagnetic Field Conditions | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Anomaly    |
|                              |     |     |     |     |     |     |     |     |     |     | Intensity  |
|                              |     |     |     |     |     |     |     |     |     |     |            |

CONFIDENCE LEVEL: 65%

#### NOTES:

Predicted geomagnetic activity is based heavily on recurrent phenomena. Transient energetic solar events cannot be predicted reliably over periods in excess of several days. Hence, there may be some deviations from the predictions due to the unpredictable transient solar component.

#### 60-DAY GRAPHICAL ANALYSIS OF GEOMAGNETIC ACTIVITY

|    |  |   |  |
|----|--|---|--|
| 54 |  | J |  |
| 51 |  | J |  |
| 49 |  | J |  |

|                                  |       |     |      |        |      |         |       |
|----------------------------------|-------|-----|------|--------|------|---------|-------|
| 46                               |       |     |      | J      |      |         |       |
| 43                               |       |     |      | J      |      |         |       |
| 40                               | M     |     |      | J      |      |         |       |
| 38                               | M     |     |      | J      |      |         |       |
| 35                               | M     |     |      | J      |      |         |       |
| 32                               | M     |     |      | J      | M    |         |       |
| 30                               | M     |     |      | J      | M    |         |       |
| 27                               | AM    | A   |      | J      | M    |         |       |
| 24                               | AM    | A   |      | J      | M    |         |       |
| 22                               | AM    | AA  | A    | JA     | M    |         |       |
| 19                               | AM    | AA  | A    | A      | JA   | MA      |       |
| 16   A                           | AM    | AAA | A AA | AA     | JA   | AMA     |       |
| 13   A                           | AM    | AAA | UAA  | A U    | AA   | JAU     | AMAUU |
| 11   A UU                        | AM    | AAA | UUA  | AU U U | AA   | JAU     | AMAUU |
| 8  U A UU                        | AMUU  | AAA | UUA  | UU UU  | UAAU | UJAUUU  | AMAUU |
| 5  U AU UUUUUU                   | AMUUU | AAA | UUA  | UUUAUQ | UAAU | UJAUUUU | AMAUU |
| 3  UQAUQUUUUUUQQQAMUUUAAAUAUUAUQ | UQ    | UQ  | UQ   | UQ     | UQ   | UQ      | AMAUU |

-----  
Chart Start Date: Day #350

NOTES:

This graph is determined by plotting the greater of either the planetary A-index or the Boulder A-index. Graph lines are labelled according to the severity of the activity which occurred on each day. The left-hand column represents the associated A-Index for that day.

Q = Quiet, U = Unsettled, A = Active, M = Minor Storm,  
J = Major Storm, and S = Severe Storm.

CUMULATIVE GRAPHICAL CHART OF THE 10.7 CM SOLAR RADIO FLUX

-----

|                |    |  |  |       |  |  |
|----------------|----|--|--|-------|--|--|
| 192            |    |  |  |       |  |  |
| 188            |    |  |  | *     |  |  |
| 184            |    |  |  | * **  |  |  |
| 180            |    |  |  | * *** |  |  |
| 176            |    |  |  | ***** |  |  |
| 172            |    |  |  | ***** |  |  |
| 168            |    |  |  | ***** |  |  |
| 164  *         |    |  |  | ***** |  |  |
| 160  *         |    |  |  | ***** |  |  |
| 156  **        |    |  |  | ***** |  |  |
| 152  **        |    |  |  | ***** |  |  |
| 148  ***** *   |    |  |  | ***** |  |  |
| 144  ***** * * |    |  |  | ***** |  |  |
| 140  ***** * * | ** |  |  | ***** |  |  |
| 136  ***** * * | ** |  |  | ***** |  |  |

```
132 |*****  
128 |***** * *****  
124 |***** * *****  
120 |*****  
116 |*****  
112 |*****  
108 |*****  
104 |*****  
100 |*****  
-----
```

Chart Start: Day #349

#### GRAPHICAL ANALYSIS OF 90-DAY AVERAGE SOLAR FLUX

---

```
143 |  
142 |  
141 |  
140 | * *****  
139 | *****  
138 | *****  
137 | *****  
136 | *****  
135 |*****  
134 |*****  
-----
```

Chart Start: Day #349

#### NOTES:

The 10.7 cm solar radio flux is plotted from data reported by the Penticton Radio Observatory (formerly the ARO from Ottawa). High solar flux levels denote higher levels of activity and a greater number of sunspot groups on the Sun. The 90-day mean solar flux graph is charted from the 90-day mean of the 10.7 cm solar radio flux.

#### CUMULATIVE GRAPHICAL CHART OF SUNSPOT NUMBERS

---

```
197 |  
190 |  
183 |  
176 | *  
169 | *  
-----
```

|     |        |             |       |
|-----|--------|-------------|-------|
| 162 | * * *  | ★           | ***** |
| 155 | ** * * | ★           | ***** |
| 148 | *****  | ★           | ***** |
| 141 | *****  | ★           | ***** |
| 134 | *****  | ★           | ***** |
| 127 | *****  | * **        | ***** |
| 120 | *****  | *****       | ***** |
| 113 | *****  | *****       | ***** |
| 106 | *****  | *****       | ***** |
| 099 | *****  | ***** * *   | ***** |
| 092 | *****  | ***** * *   | ***** |
| 085 | *****  | ***** * *** | ***** |
| 078 | *****  | *****       | ***** |
| 071 | *****  | *****       | ***** |
| 064 | *****  | *****       | ***** |
| 057 | *****  | *****       | ***** |
| 050 | *****  | *****       | ***** |
| 043 | *****  | *****       | ***** |

Chart Start: Day #349

## NOTES:

The graphical chart of sunspot numbers is created from the daily sunspot number counts as reported by the SESC.

HF RADIO SIGNAL PROPAGATION PREDICTIONS (12 FEB - 21 FEB)

## High Latitude Paths

## Middle Latitude Paths

## Low Latitude Paths

## NOTES:

| NORTHERN HEMISPHERE |                |         | SOUTHERN HEMISPHERE |                |         |
|---------------------|----------------|---------|---------------------|----------------|---------|
| High latitudes      | $\geq 55$      | deg. N. | High latitudes      | $\geq 55$      | deg. S. |
| Middle latitudes    | $\geq 40 < 55$ | deg. N. | Middle latitudes    | $\geq 30 < 55$ | deg. S. |
| Low latitudes       | $< 40$         | deg. N. | Low latitudes       | $< 30$         | deg. S. |

POTENTIAL VHF DX PROPAGATION PREDICTIONS (12 FEB - 21 FEB)  
INCLUDES SID AND AURORAL BACKSCATTER ENHANCEMENT PREDICTIONS

## HIGH LATITUDES

|   |   |                          |  |  |  |  |                     |
|---|---|--------------------------|--|--|--|--|---------------------|
| 0%  | *** *** *** *** *** *** *** *** *** *** *** | 0% * * * * * * * * * * * |  |  |  |  |                     |
| ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- |   |                          |  |  |  |  |                     |
| CHANCE OF   | Fri Sat Sun Mon Tue Wed Thu Fri Sat Sun     | F S S M T W T F S S      |  |  |  |  |                     |
| VHF DX  | Given in 8 hour local time intervals        |                          |  |  |  |  | AURORAL BACKSCATTER |

## MIDDLE LATITUDES

## LOW LATITUDES

| CHANCE OF | Fri                                  | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | F                   | S | S | M | T | W | T | F | S | S |
|-----------|--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|---|---|---|---|---|---|---|---|---|
| VHF DX    | Given in 8 hour local time intervals |     |     |     |     |     |     |     |     |     | AURORAL BACKSCATTER |   |   |   |   |   |   |   |   |   |

## NOTES:

These VHF DX prediction charts are defined for the 30 MHz to 220 MHz bands. They are based primarily on phenomena which can affect VHF DX propagation globally. They should be used only as a guide to potential DX conditions on VHF bands. Latitudinal boundaries are the same as those for the HF predictions charts.

AURORAL ACTIVITY PREDICTIONS (12 FEB - 21 FEB)

## High Latitude Locations

## Middle Latitude Locations

## Low Latitude Locations

|             |     |      |          |           |       |          |     |     |     |     |     |
|-------------|-----|------|----------|-----------|-------|----------|-----|-----|-----|-----|-----|
| NOT VISIBLE | *** | ***  | ***      | ***       | ***   | ***      | *** | *** | *** | *** | *** |
| AURORAL     |     | Fri  | Sat      | Sun       | Mon   | Tue      | Wed | Thu | Fri | Sat | Sun |
| INTENSITY   |     | Eve. | Twilight | /Midnight | Morn. | Twilight |     |     |     |     |     |

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NOTE:

A Dynamic Auroral Oval Simulation and Prediction Software Package is available to help make predictions and show the locations where auroral activity should be visible from the ground. For more information regarding this software, contact: "Oler@Rho.Uleth.CA", or "COler@Solar.Stanford.Edu".

For more information regarding these charts, send a request for the document, "Understanding Solar Terrestrial Reports" to: "Oler@Rho.Uleth.Ca" or to: "COler@Solar.Stanford.Edu". This document, as well as others and related data/forecasts exist on the STD BBS at: (403) 756-3008.

\*\* End of Report \*\*

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End of Info-Hams Digest V93 #203

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